

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-16 (Cancelled).

17. (New) A fuel injection valve for internal combustion engines, comprising
a valve body (1) having a bore (3),
a pistonlike valve needle (5) disposed in the bore (3),
a valve seat (9), embodied on the end of the bore (3) toward the combustion chamber
a valve sealing face (7) embodied on the valve needle (5) and cooperating with the
valve seat (9) whereby, by the longitudinal motion of the valve needle (5), the opening of at
least one injection opening (11) embodied on the end toward the combustion chamber of the
valve body (1) is controlled, and
microscope indentations (32; 35; 38) on the valve sealing face (7) and/or the valve
seat (9).

18. (New) The fuel injection valve of claim 17, wherein the microscopic indentations (32;
35; 38) are embodied individually and are separate from one another.

19. (New) The fuel injection valve of claim 18, wherein the microscopic indentations (32;
35; 38) are embodied as dimples (32).

20. (New) The fuel injection valve of claim 19, wherein the dimples (32), viewed in the circumferential direction of the valve needle (5), have a lesser spacing between one another than in the longitudinal direction of the valve needle (5).

21. (New) The fuel injection valve of claim 19, wherein the dimples (32), viewed in the circumferential direction of the valve sealing face (7), have a greater spacing between one another than in the longitudinal direction of the valve needle (5).

22. (New) The fuel injection valve of claim 18, wherein the microscopic indentations (32; 35; 38) have a spacing (a) from one another of between about 5 μm and 500 μm .

23. (New) The fuel injection valve of claim 17, wherein the microscopic indentations (32; 35; 38) are embodied as grooves (38).

24. (New) The fuel injection valve of claim 17, wherein the microscopic indentations (32; 35; 38) are embodied as groove segments (35).

25. (New) The fuel injection valve of claim 23, wherein the microscopic indentations (32; 35; 38) intersect at least in part.

26. (New) The fuel injection valve of claim 24, wherein the microscopic indentations (32; 35; 38) intersect at least in part.

27. (New) The fuel injection valve of claim 23, wherein the microscopic indentations (32; 35; 38) extend in concentric circles over the entire circumference of the valve sealing face (7) and/or of the valve seat (9).

28. (New) The fuel injection valve of claim 24, wherein the microscopic indentations (32; 35; 38) extend in concentric circles over the entire circumference of the valve sealing face (7) and/or of the valve seat (9).

29. (New) The fuel injection valve of claim 17, wherein the microscopic indentations (32; 35; 38) overlap at least in part.

30. (New) The fuel injection valve of claim 17, wherein the microscopic indentations (32; 35; 38) have a depth between about 0.5 μm and 50 μm .

31. (New) The fuel injection valve of claim 17, wherein the microscopic indentations (32; 35; 38) have a depth between about 3 μm and 20 μm .

32. (New) The fuel injection valve of claim 17, wherein the microscopic indentations (32; 35; 38) have a width (b) of between about 5 μm and 100 μm , preferably between 10 μm and 50 μm .

33. (New) The fuel injection valve of claim 17, wherein the microscopic indentations (32; 35; 38) are produced by jet machining, laser machining, hard turning, microembossing, spark erosion, or by lithographic or electrochemical methods.

34. (New) The fuel injection valve of claim 23, wherein the grooves (38) are produced by fine turning.

35. (New) The fuel injection valve of claim 30, wherein the microscopic indentations (32; 35; 38) are made after the fine machining of the valve sealing face (7) and of the valve seat (9) and the faces are subsequently postmachined by lapping, fine polishing or finishing.

36. (New) The fuel injection valve of claim 31, wherein the microscopic indentations (32; 35; 38) are made after the fine machining of the valve sealing face (7) and of the valve seat (9) and the faces are subsequently postmachined by lapping, fine polishing or finishing.